NetworkX

High productivity software for complex networks

About

NetworkX (NX) is a Python package for the creation, manipulation, and study of the structure, dynamics, and functions of complex networks.

Features:

- *Includes standard graph-theoretic and statistical physics functions*
- *Easy exchange of network algorithms between applications, disciplines, and platforms*
- *Includes many classic graphs and synthetic networks*
- *Nodes and edges can be "anything" (e.g. time-series, text, images, XML records)*
- *Exploits existing code from high-quality legacy software in C, C++, Fortran, etc.*
- *Open source (encourages community input)*
- *Unit-tested*

Additional benefits due to Python:

- *Allows fast prototyping of new algorithms*
- *Easy to teach*
- *Multi-platform*
- *Allows easy access to almost any database*

Quick Example

Just write in Python

```
>>> import networkx as NX
>>> G=NX.Graph()
>>> G.add_edge(1,2)
>>> G.add_node("spam")
>>> print G.nodes()
[1, 2, 'spam']
>>> print G.edges()
[(1, 2)]
```

Download

- *Releases*
  - *Python Cheese Shop:* http://cheeseshop.python.org/pypi/networkx/
  - *NetworkX site:* https://networkx.lanl.gov/download/networkx/
- *Subversion repository:* https://networkx.lanl.gov/svn/networkx/trunk

Authors

- *Aric Hagberg* http://math.lanl.gov/~hagberg/
- *Dan Schult*
- *Pieter Swart*